

Layer Name: Tsunami Evacuation Zones

File Name: TSUNEVAC

Layer Type: Polygon

Status: Complete

Geog. Extent: Islands of Kauai, Molokai, Lanai, Maui and Hawaii

Projection: Universal Trans Mercator, Zone 4 (Meters)

Datum: NAD 83

Description: Tsunami Evacuation Zones for the islands of Kauai, Molokai, Lanai, Maui and Hawaii

NOTE: Island of Oahu revised and published 2010: tsunevac_oahu

Source: Pacific Disaster Center (PDC), 1998.

History: (Text written by PDC Staff, 1998):

Tsunami evacuation layers for the State were digitized from Tsunami Evacuation Zone proof maps provided by the State of Hawaii Civil Defense, and published in County Telephone Directories by GTE in 1991. These maps were produced by the Joint Institute for Marine and Atmospheric Research, at the University of Hawaii, in cooperation with the State of Hawaii Civil Defense System. Data from these maps were digitized in the GIS program Arc View Version 3.0a using features from island coastlines, roads, and the USGS 7.5 minute digital raster graphics (DRGs). Specific distances given on the maps (for example: "1900 feet from Farrington Highway") were incorporated into the digitization. Where no distances were given, evacuation zone boundaries were estimated by topographical characteristics, or approximated using surrounding features such as roads. In cases where evacuation zone boundaries bordered roadways, selected roads from state DLG road layer were extracted into the tsunami evacuation shape file for accuracy. No details of scale accompanied the paper proofs.

Coastline and evacuation zone shape files for each island were then made into coverages using ArcInfo Version 7.1.2, which were subsequently appended into a single coverage for editing. Arcedit was used to eliminate all dangling nodes, intersections, etc.

Tolerances were set to minimize the alteration of zone boundaries. Topology was built for each island, polygons labeled, and polygon attribute tables created. Each polygon is associated with a particular evacuation map, with the exception of two polygons on Oahu maps which are areas of high ground (map #7), and water (maps # 18-19) within evacuation zones.

A coverage for the State was created from appended individual island coverages in ArcInfo.

In 2010, Oahu evacuation zones were removed from this layer because the Oahu zones had been updated. The updated zones can be found in the shapefile tsunevac_oahu.

NOTE: It came to the attention of the persons working on this project that many place names on the paper proof maps have incorrect spelling. In addition, there are populated areas near sea level that are not included in any of the present maps. Two examples on Maui are Maliko Bay, and Kahakuloa Bay. Therefore, users are reminded always to use caution when using this data.

Attributes:

Polygons:

AREA	area of polygon (sq. meters)
PERIMETER	perimeter of polygon (meters)
TSUNEVAC#	Polygon internal number (for Arc/Info use)
TSUNEVAC-ID	Polygon ID (for Arc/Info use)
ISLAND	Island Name
MAPNUM	Map # of evacuation zone as it appears in the county telephone directory.
MAPNAME	Geographic area covered by each numbered evacuation zone map, as it appears in the county telephone directory.

Arcs:

FNODE#	From Node Number (for Arc/Info use)
TNODE#	To Node Number (for Arc/Info use)
LPOLY#	Left Polygon Number (for Arc/Info use)
RPOLY#	Right Polygon Number (for Arc/Info use)
LENGTH	Length (meters)
TSUNEVAC#	Arc Internal Number (for Arc/Info use)
TSUNEVAC-ID	Arc ID (for Arc/Info use)

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